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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MEW, KEVIN D	

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/029,124	GASPARD ET AL.	
	Examiner	Art Unit	
	Kevin Mew	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-30, 43-48* is/are allowed.

6)☒ Claim(s) *31-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Response to Amendment

1. Applicant's Remarks/Arguments filed on regarding claims 1-48 have been considered. Claims 1-48 are currently pending.

2. Acknowledgement is made of the amended claims 27-28 with respect to the claim objections set forth in the previous Office action. The corrections are acceptable and the claim objections are now withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 31 is rejected under 35 U.S.C. 102(e) as being anticipated by Aoyagi et al. (US Publication 20002/0032761).

Regarding claim 31, Aoyagi discloses an apparatus for automatic discovery of network devices within a managed network comprising:

a display device comprising a discovery range window for displaying a network address range for discovery of network devices (graphical user interface GUI for displaying a range of network addresses for discovery of network devices, elements 3601, 3603, 3604, Fig. 36) and a

discovered devices window for displaying identification information for devices discovered within said network address range (a terminal information window showing the IP address of a network device, element 3602, Fig. 36),

said devices providing routing capabilities (routers are devices that provide routing capabilities, paragraph 0445, and routers discovered are displayed in a GUI display, element 3601, "ori-irouter.ori.xxx.co.jp" in Fig. 36)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 32-35, 37-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyagi et al. (US Publication 20002/0032761) in view of Singer et al. (USP 6,834,298).

Regarding claim 32, Aoyagi discloses all the aspects of the claimed invention set forth in the rejection of claim 31 above, except fail to disclose the apparatus of claim 31 further comprising a user interface for accepting input from a user, said user interface comprising means for said user to specify said discovery range.

However, Singer discloses a user interface screen that accepts user inputs and providers users with "Add IP range window" as a means to specify/add a range of IP addresses as a discovery range (col. 15, lines 10-19 and Fig. 19E).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the auto-device discovery system of Aoyagi with the teaching of Singer in searching for a range of IP addresses during the auto discovery process of network devices such that the graphical user interface of Aoyagi will accept inputs from a user, said user interface comprising means for said user to specify said discovery range.

The motivation to do so is to provide a visual display for user to input start and end IP addresses as a searching range during auto-discovery of network devices.

Regarding claim 33, Aoyagi discloses the apparatus of claim 32 wherein said user interface comprises means for said user to select one or more of said discovered devices displayed in said discovered devices window for management by a network management system (information of a device is displayed for management in area 3602 in the network configuration of chart display, see paragraph 0339 and Fig. 36).

Regarding claim 34, Aoyagi and Singer disclose all the aspects of claim 33 above. Aoyagi may not explicitly show further comprising a network communications system for sending network communications to each network address in said discovery range.

However, Singer discloses Auto-Discovery Service (network communication system) where it sends "ping" (network communications) to the IP address range when searching the IP address range for network devices (col. 5, lines 52-67, col. 6, lines 1-8 and Fig. 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the auto-device discovery system of Aoyagi with the teaching of

Singer in having Auto-Discovery Service (network communication system) where it sends "ping" (network communications) to the IP address range when searching the IP address range for network devices such that auto-discovery system of Aoyagi will comprise a network communications system for sending network communications to each network address in said discovery range.

The motivation to do so is to discover network devices and to retrieve hardware and software description information of the discovered devices.

Regarding claim 35, Aoyagi discloses the apparatus of claim 32 wherein said range comprises a plurality of contiguous network addresses (a plurality of contiguous IP addresses, see Fig. 46a).

Regarding claim 37, Aoyagi discloses the apparatus of claim 34 comprising a message response analyzer for analyzing responses received from network addresses in said discovery range (analyzing network device information display areas 3601, 3602, see paragraph 0339, Fig. 36).

Regarding claim 38, Aoyagi discloses the apparatus of claim 37 wherein said message response analyzer comprises identification means for identifying a type of a device sending a response (network map area 3601 in the network configuration of chart display, identifies whether the device is a type of router or non-intelligent hub, see Fig. 36).

Regarding claim 39, Aoyagi and Singer disclose all the aspects the apparatus of claim 34.

Aoyagi further discloses said network communications system comprises means for receiving messages originating from network devices (MIB access module receives SNMP response message originated from SNMP agent running on the network device, paragraphs 0002, 0146, 0221).

Regarding claim 40, Aoyagi discloses the apparatus of claim 34 wherein said means for receiving messages originating from network devices comprises means for receiving SNMP messages (MIB access module receives SNMP response message originated from SNMP agent running on the network device, paragraphs 0002, 0146, 0221).

Regarding claim 41, Aoyagi discloses the apparatus of claim 34 wherein said discovery range comprises IP addresses (an auto discovery module for searching all the IP addresses specified in the network range, see paragraphs 0393).

Regarding claim 42, Aoyagi discloses the apparatus of claim 31 wherein said discovered devices window comprises information identifying a discovered device's type (network map area 3601 in the network configuration of chart display, which identifies the device is of type router, see element 3601, Fig. 36 and paragraph 0445).

5. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyagi et al. in view of Singer, and in further view of Bearden et al. (USP 6,917,626).

Regarding claim 36, Aoyagi and Singer disclose all the aspects of the claimed invention set forth in the rejection of claim 32 above, except fail to disclose the apparatus of claim 32 wherein said range comprises a plurality of discreet, non-contiguous network addresses.

However, Bearden discloses network devices with IP addresses that belong to another subnet (see paragraphs 0012, 0013, 0014).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the auto-device discovery system of Aoyagi and Singer with the teaching of Bearden in using a plurality of non-contiguous IP addresses for discovering devices located in another subnet such that the range of addresses being used can be a plurality of discreet, non-contiguous network addresses.

The motivation to do so is to discover legacy network devices that are located in another network.

Allowable Subject Matter

6. Claims 1-30, 43-48 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

In claim 1, a method for automatic discovery of network devices within a managed network comprising the steps of:

if said first device provides routing capabilities, making said first device available for selection for management by a network management system;

selecting a second address from said first set of network addresses;

repeating said sending, and awaiting steps for said second network address.

In claim 25, a method of managing from a network management system (NMS), network devices added to communication network, comprising:

if said network device has routing capabilities, adding the network device to a list of detected devices and setting the status of said network device in said list set to uncommitted; and

removing said network device from said list upon receiving confirmation that said network device should be managed from said NMS.

Response to Arguments

7. Applicant's arguments with respect to claims 31-42 have been fully considered but are moot in view of the new ground(s) of rejection. The previous rejections set forth on claims 1-30, 43-48 have been withdrawn.

Applicant argued on page 16, paragraph 2 of the Remarks that Aoyagi does not teach or suggest "a network address range for discovery of network devices" as recited in claim 31, examiner respectfully disagrees. It is noted that Aoyagi discloses a graphical user interface GUI display of a list of network addresses for the discovered network devices (paragraphs 0337-0339 and Fig. 36; note that the network addresses are the ones shown in elements 3601, 3603, 3604 in Fig. 36), which reads on "a network address range for discovery of network devices."

In response to applicant's argument on page 16, paragraph 3 of the Remarks that the secondary prior art, Kracht, does not teach or suggest "said devices providing routing capabilities" as recited claim 31, it is noted that that a new ground of rejection is made in view of

the Aoyagi reference. Specifically, Aoyagi discloses a discovery mechanism for discovering routers (routers are devices that can provide routing capabilities, paragraph 0445). Aoyagi also discloses routers discovered are displayed in a GUI display (element 3601, "ori-irouter.ori.xxx.co.jp" in Fig. 36). Therefore, Aoyagi clearly anticipates "said devices providing routing capabilities."

In response to applicant's argument regarding claim 32 on page 12, paragraph 1 and claim 41 on page 14, last paragraph of the Remarks that Aoyagi does not disclose "a user interface for accepting input from a user, said user interface comprising means for said user to specify said discovery range" and "wherein said discovery range comprises IP addresses," it is noted that a new ground of rejection is made over Aoyagi et al. (US Publication 20002/0032761) in view of of Singer et al. (USP 6,834,298).

Applicant also argued regarding claim 33 on page 12, paragraph 1 of the Remarks that Aoyagi does not disclose "means for said user to select one or more of said discovered devices," examiner respectfully disagrees. Aoyagi clearly discloses that when a user moves a mouse pointer over a discovered device display such as element 3603 in Fig. 36, the information of the device is displayed in the Terminal Information display area 3602 (paragraph 0339). This clearly shows that Aoyagi discloses a "means for said user to select one or more of said discovered devices."

With respect to applicant's argument on page 13, paragraph 1 of the Remarks about claim 35, examiner noted that claim 35 depends from claim 32, which is rejected under a new ground of rejection as already mentioned above. For the subject matter "a plurality of contiguous

addresses" as recited claim 35, Singer discloses such limitations in col. 15, lines 10-19 and Fig. 19E.

Applicant argued on page 13, paragraphs 2 and 3 of the Remarks about claims 37 and 38 that Aoygai fails to disclose the word "analyzer," examiner respectfully disagrees. The graphical user interface GUI display is an analyzer that allows users to discover a plurality of network devices and to display their associated information on an application window when the user moves the mouse pointer over a particular discovered device. The GUI of Aoyagi functions as an analyzer/explorer/investigating tool/examining tool/probing tool to explore the information associated with the discovered devices. Therefore, Aoyagi clearly shows that the GUI display acts as an analyzer/explorer/investigating tool/examining tool/probing tool.

Applicant argued on page 17, paragraph 2 of the Remarks about claim 36 that the Bearden reference does not disclose "said range comprises a plurality of discreet, non-contiguous network addresses," examiner respectfully disagrees. Bearden teaches an IP address is composed of two parts, subnet address and host address, and therefore IP addresses in different subnets will have different subnet addresses. Hence, IP addresses can be discreet, non-contiguous network addresses. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the auto-device discovery system of Aoyagi and Kracht with the teaching of Bearden in using a plurality of non-contiguous IP addresses for discovering devices located in another subnet such that the range of addresses being used can be a plurality of discreet, non-contiguous network addresses. The motivation to do so is to discover legacy network devices that are located in another network.

In response to applicant's argument on page 16, last paragraph of the Remarks about claim 42 that Aoyagi does not disclose "said discovered devices window comprises information identifying a discovered device's type," it is noted that a new ground of rejection is made above in view of Aoyagi such that Aoyagi discloses the discovered device type of router is identified in the discovered device window.

With respect to applicant's arguments on page 12, last paragraph, page 14, paragraphs 1 and 2 of the Remarks about claims 34, 39, 40, it is noted that a new ground of rejection is made over Aoyagi in view of Singer.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SUPERVISORY PATENT EXAMINER
10/31/07